

LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: METALUX

Report Number: P843314

Luminaire Tested: 24CGSB-40-L950

Issue Date: 5/31/2024

Tested By:

Approved By:



Cooper Lighting Solutions laboratories have been accredited by National Voluntary Laboratory Accreditation Program (NVLAP) that it adheres to the requirements of ISO/IEC 17025:2005 and appropriate IESNA test methods. This report must not be used to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the Federal Government. Results contained in this report are valid for luminaire sample tested, as supplied by requestor. Information related to the luminaire tested has been supplied by requestor and can affect the validity of the test results. Report shall not be reproduced except in full without approval of Cooper Lighting Solutions Lighting Laboratory. Test performed at address noted above.

**Test Information**

Test Method: LM-79-2019  
 Report Number: P843314  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-40-L950  
 Description: 2x4 CGSB AT 4000LM 5000K 90CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

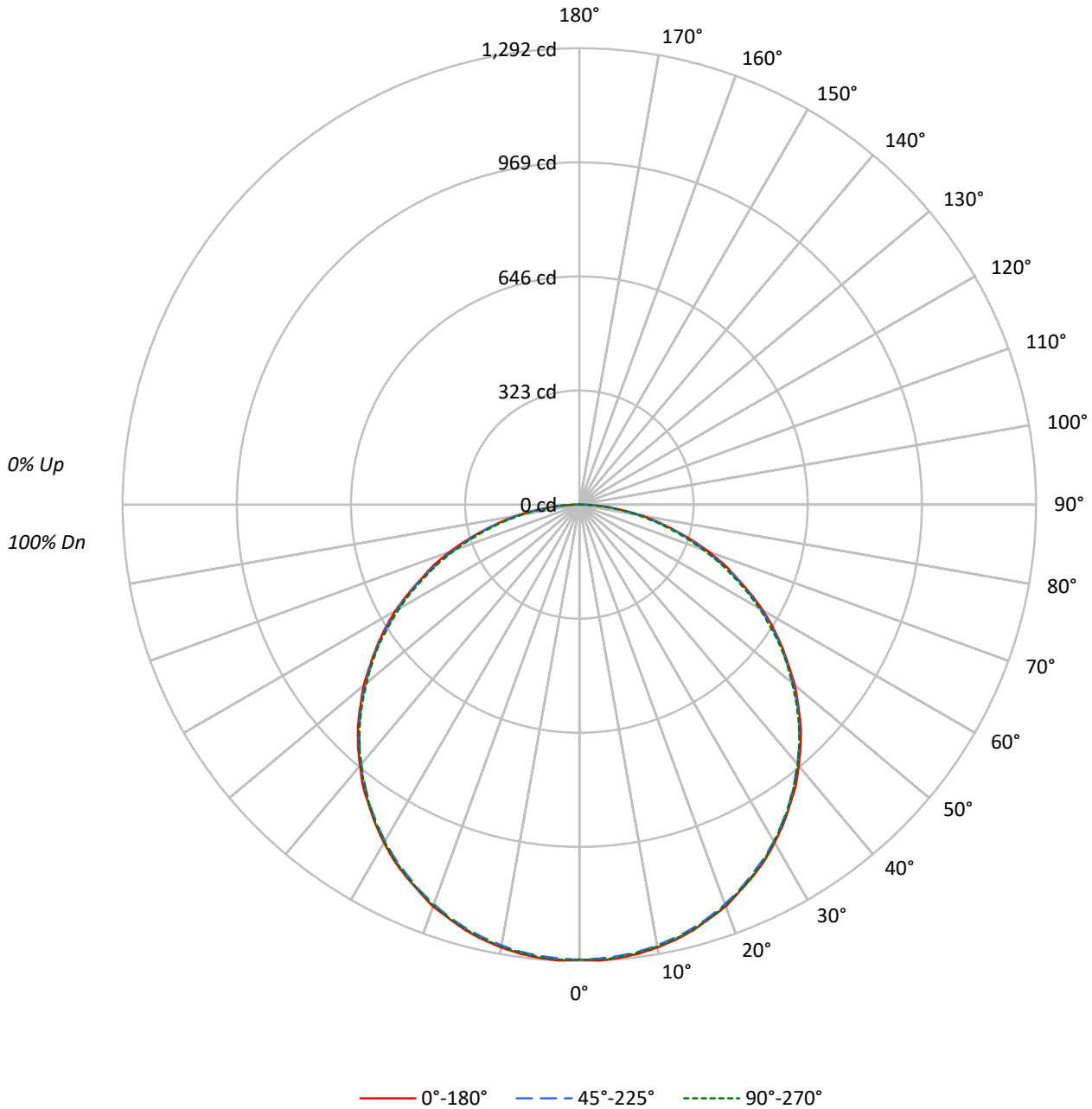
Lumens per Lamp: N/A  
 Luminaire Lumens: 3811.6 lumens  
 Efficiency: N/A  
 Efficacy: 118.7 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

Input Watts (W): 32.1  
 Input Voltage (V): 120  
 Input Current (Ain): NR  
 Voltage Rise (V): NR  
 Power Factor: NR  
 Total Harmonic Distortion (THDi): NR  
 Frequency (hertz): 60  
 Stabilization Time: NR  
 Operation Time: NR  
 Ambient Temperature (°C): NR  
 Test Distance: 24 FT

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	P3	10/30/2015	4/30/2016
Power Meter	IN0214	1/12/2016	1/12/2017
AC Power Source	IN0062	1/12/2016	1/12/2017
DC Power Supply	--	--	--
Room Thermometer	IN0145	1/13/2016	1/13/2017

TEST NUMBER: P843314  
CATALOG NUMBER: 24CGSB-40-L950

### Luminous Intensity Polar Plot



TEST NUMBER: P843314  
 CATALOG NUMBER: 24CGSB-40-L950

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	93	97	94	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	62	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1733	1733	1733
5°	1740	1732	1737
10°	1739	1731	1736
15°	1737	1729	1734
20°	1734	1724	1729
25°	1724	1716	1721
30°	1717	1710	1711
35°	1705	1699	1701
40°	1695	1685	1687
45°	1685	1674	1671
50°	1667	1652	1645
55°	1639	1631	1623
60°	1615	1596	1583
65°	1563	1552	1529
70°	1529	1488	1465
75°	1447	1429	1380
80°	1383	1337	1283
85°	1233	1215	1124

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1685 cd/sqm

TEST NUMBER: P843314  
 CATALOG NUMBER: 24CGSB-40-L950

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.1	3.2
10°-20°	350.7	9.2
20°-30°	533.8	14.0
30°-40°	647.9	17.0
40°-50°	678.5	17.8
50°-60°	620.0	16.3
60°-70°	481.8	12.6
70°-80°	289.0	7.6
80°-90°	87.9	2.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1006.6	26.4
0°-40°	1654.5	43.4
0°-60°	2952.9	77.5
0°-90°	3811.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3811.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1288	1288	1288	1288	1288	
5°	1288	1285	1282	1282	1286	122
15°	1247	1242	1241	1241	1245	352
25°	1162	1157	1156	1157	1159	536
35°	1038	1036	1035	1035	1036	650
45°	886	881	880	878	878	682
55°	699	696	695	689	692	625
65°	491	490	487	482	480	489
75°	278	277	275	270	265	296
85°	80	79	79	76	73	90
90°	0	0	0	0	0	

TEST NUMBER: P843314  
 CATALOG NUMBER: 24CGSB-40-L950

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1288.3	1288.3	1288.3	1288.3	1288.3
2.5°	1291.8	1287.1	1286.0	1286.0	1289.5
5°	1288.3	1284.8	1282.4	1282.4	1286.0
7.5°	1282.4	1277.7	1276.6	1276.6	1278.9
10°	1273.0	1269.5	1267.2	1267.2	1270.7
12.5°	1261.3	1256.6	1255.4	1256.6	1258.9
15°	1247.2	1242.5	1241.3	1241.3	1244.9
17.5°	1228.4	1224.9	1223.7	1223.7	1227.2
20°	1210.8	1204.9	1203.7	1204.9	1207.3
22.5°	1185.0	1182.6	1181.4	1182.6	1183.8
25°	1161.5	1156.8	1155.6	1156.8	1159.1
27.5°	1135.6	1130.9	1129.8	1129.8	1133.3
30°	1105.1	1101.6	1100.4	1100.4	1101.6
32.5°	1073.4	1071.0	1067.5	1068.7	1071.0
35°	1038.2	1035.8	1034.6	1034.6	1035.8
37.5°	1005.3	1000.6	997.1	997.1	999.4
40°	965.3	963.0	959.5	960.7	960.7
42.5°	926.6	923.1	920.7	919.5	920.7
45°	885.5	880.8	879.6	878.4	878.4
47.5°	839.7	839.7	836.2	833.8	832.6
50°	796.2	791.5	789.2	785.7	785.7
52.5°	745.7	744.6	741.0	739.9	739.9
55°	698.8	696.4	695.2	689.4	691.7
57.5°	650.6	645.9	644.7	641.2	638.9
60°	600.1	597.8	593.1	588.4	588.4
62.5°	546.1	544.9	540.2	536.7	535.5
65°	490.9	489.7	487.4	481.5	480.3
67.5°	443.9	439.2	433.3	428.7	428.7
70°	388.7	382.9	378.2	373.5	372.3
72.5°	332.4	328.8	326.5	321.8	318.3
75°	278.3	277.2	274.8	270.1	265.4
77.5°	227.8	226.7	220.8	217.3	213.7
80°	178.5	173.8	172.6	167.9	165.6
82.5°	125.7	128.0	122.1	121.0	119.8
85°	79.9	78.7	78.7	76.3	72.8
87.5°	35.2	36.4	36.4	36.4	36.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)